VZCZCXRO3285 OO RUEHPA DE RUEHOS #0640/01 2631546 ZNY CCCCC ZZH O 201546Z SEP 07 FM AMCONSUL LAGOS TO RUEHC/SECSTATE WASHDC IMMEDIATE 9422 RUEHZK/ECOWAS COLLECTIVE PRIORITY RUEHUJA/AMEMBASSY ABUJA PRIORITY 9195 INFO RUFOADA/JAC MOLESWORTH AFB UK RUEKJCS/SECDEF WASHINGTON DC RUCPDOC/DEPT OF COMMERCE WASHDC RHEBAAA/DEPT OF ENERGY WASHINGTON DC RUEATRS/DEPT OF TREASURY WASHDC RUEAIIA/CIA WASHINGTON DC RHEFDIA/DIA WASHINGTON DC

C O N F I D E N T I A L SECTION 01 OF 03 LAGOS 000640

SIPDIS

SIPDIS

DOE FOR GPERSON, CGAY
TREASURY FOR ASAEED, SRENENDER, DFIELDS
COMMERCE FOR KBURRESS
STATE PASS USTR FOR ASST USTR FLISER
STATE PASS TRANSPORTATION FOR MARAD
STATE PASS OPIC FOR ZHAN AND MSTUCKART
STATE PASS TDA FOR EEBONG, PDAVIS
STATE PASS EXIM FOR JRICHTER
STATE PASS USAID FOR GWEYNAND AND SLAWAETZ

E.O. 12958: DECL: 10/20/2016 TAGS: <u>EPET ENERG PGOV NI</u> SUBJECT: WHO WILL GET NIGERIA

SUBJECT: WHO WILL GET NIGERIA'S NATURAL GAS? (CORRECTED COPY)

REF: A) LAGOS 00208 B) 06 LAGOS 01358 C) LAGOS 01365

Classified By: Ambassador Donald McConnell, Consul General a.i.; Reason s 1.4 (B,D)

11. (C) Summary: Godwin Billy Agha, Deputy Director, Gas Division, Department of Petroleum Resources told Pol-Econ Chief that the Government of Nigeria (GON) has shifted its priorities from gas to export to gas for domestic use. Currently, there is not enough gas to feed into export projects awaiting completion. Agha catalogued problems with the West African Gas Pipeline (WAGP) and the OK and Brass LNG projects. End Summary.

How Much Gas; Who Will Get It?

- 12. (C) Godwin Billy Agha, Deputy Director of the Gas Division, Department of Petroleum Resources (DPR) told Pol-Econ Chief that the government's shift in priorities from export to domestic use for the nation's natural gas will be reflected in new gas regulations which are ready to be promulgated. Agha suggested that the owner of an LNG plant would not be allowed to supply the LNG plant with gas. Such a regulation would allow each plant to buy from many different sources and prevent the owner of the gas from subsidizing the plant, Agha said.
- 13. (C) Reserves, as calculated by the international oil companies (IOCs), are not all proven and much more investment will be needed to prove them, Agha said. The Brass LNG project may not be able to prove its reserves for 20 years because, he opined, the reserves "are just not there." Nor are all gas reserves recoverable, he warned. Some gas is "stranded", that is there is no infrastructure in place to allow the gas to be gathered and connected to markets.
- 14. (C) As a result, Agha believes that there may not be sufficient gas to support all the LNG projects currently planned. (Note: NLNG executives suggested the same thing;

- see Ref. A. End Note) Nigeria's first priority must be domestic; "keeping Nigeria alive" necessitates serving the domestic market first. Gas is needed to run the aluminum smelter in Ikot Abasi, Akwa Ibom State; and iron ore processing facilities in Warri, Delta State, and Adjobata, Kwara State. Gas could also be used as feedstock for fertilizer production (Note: The country currently imports most fertilizer. End Note) and as fuel for the refineries.
- 15. (C) Despite the uncertainty about gas availability, there are many investors whose plans require large quantities of natural gas for export. Agha ran down the prospects for and problems with each project:

West Africa Gas Pipeline Plagued with Problems

- 16. (C) The West Africa Gas Pipeline Company (WAGPCO), made up of Chevron, Shell and the Nigerian National Petroleum Company (NNPC), is the consortium supplying Nigerian natural gas to the West Africa Gas Pipeline (WAGP). Chevron and Shell have been plagued with problems in gathering the gas and moving it through NNPC pipelines to the WAGP.
- 17. (C) Alagbado Connecting Line: Feed for the WAGP is intended to come from onshore fields, primarily Chevron's Escravos field and secondarily Shell's Sapele-Oben field via the Escravos to Lagos Pipeline (ELP). A connecting line from Alagbado is planned to carry gas from the ELP to the WAGP. Willbros, an oil services company, won the contract to lay that connecting pipeline. However, the company ran into difficulties (see Refs B,C) and ultimately sold the business to Ascot, a Nigerian firm. Ascot did not realize how

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- difficult engineering for the job would be, Agha said. The terrain through which the pipeline runs is very difficult and requires a far higher level of engineering than Ascot can provide. Ascot wants to renegotiate the contract, but "no one is talking to them", Agha said. The connecting pipeline would also carry large quantities of gas from fields offshore Escravos, Agha said.
- 18. (C) Chevron Pipeline, Gas Storage Problems: Upstream from Alagbado, the Shanomi Creek pipeline that feeds into the ELP trunk line has been vandalized. Chevron,s Escravos fields produce associated gas (AG), that is, gas that is found with oil. However, the Escravos tank farm provides storage and off-loading facilities only for oil. As a result, all AG found in the area is currently being flared.
- 19. (C) Shell Condensate Disposal Problem: Shell,s Sapele-Ogben field is gas-rich. However, the gas contains a high level of natural gas liquids (NGL), benthene and C5 condensate. The Egbin thermal power plant in Lagos can use gas as fuel but only if it is condensate-free. In order to get the gas to Egbin, space in the Escravos-Lagos pipeline must be created. Shell pumps the gas with condensate to Warri, where the Warri Refinery has a condensate holding tank. However, the tank is damaged, and consequently must be evacuated often or backflow will occur and create problems at Egbin. To avoid these problems, Shell has been pumping some condensate directly to the jetty. The company is seeking bidders on a contract for condensate disposal.
- 110. (C) Another problem facing the WAGP is that a leak has been discovered in the pipeline between Lagos Beach and Ghana. The leak is difficult to find because the line is buried underground offshore. Agha predicts it will take a long time to find and repair the leak.
- 111. (C) A third major problem with the WAGP is that large rocks between the pipeline and the shore of Ghana make installing a connecting pipeline difficult. A solution must be found to remove or reduce the size of the rocks that lie along the shore. In addition, the pipeline will have to be

angled so as to create a sufficient gradient to allow gas to flow. These are large engineering hurdles to overcome, Agha said.

OKLNG: Obasanjo's Home State Project

- 112. (C) Chevron and Shell are partners in the Olokola Liquefied Natural Gas facility (OKLNG) which will produce gas for export. Former President Obasanjo took a keen interest in this project, seeing it as a way to transform Ogun State, where he has his farm, into an oil and gas producing state. To accomplish this, he forced a change in the location of the project from Delta State to the border between Ogun and Lagos states. However, by the time the OK project was on the drawing boards, Agha said, the Government of Nigeria had begun to have second thoughts about using for another plant the same model on which the Nigeria Liquefied Natural Gas (NLNG) project had been built (See Ref A) for another plant. NLNG was a huge success but on terms very favorable to the investors and less so to the GON, in the government's view. NLNG buys gas, which includes both condensate (the equivalent of light crude oil) and Liquefied Petroleum Gas (LPG) in volume then sells the resulting LNG in energy value. According to Agha, the government believes it gets no profit from this arrangement and feels shortchanged.
- 113. (C) As a result, Agha said, the government decided not to use the NLNG model for the OK plant. OK was created as a tolling project. Each supplier company owns the gas it sends to the plant. Chevron has announced that before sending the gas to the plant, the company will separate the gas into LPG

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and condensate, measure each, then recombine them and send the recombined gas to the plant where it will be processed into LNG and condensate. Chevron will pay for processing the gas and will collect its own condensate at the end of the process.

114. (C) Front-end engineering for the OK project has been completed. There are some supply issues and some metering issues that have had to be resolved. In addition, the pipeline from the plant to the ships will be very long, creating numerous engineering problems similar to those faced by the Brass LNG project, Agha said.

Brass LNG: Expensive Engineering Problems

115. (C) At a cost of USD 8.8 billion, the Brass LNG plant is the most expensive of all the plants planned for Nigeria. A consortium made up of Total, Shell and Conoco Phillips will supply gas to the facility. The major problem with the plant, aside from its expense, is that the pipeline that takes the LNG from the plant to the ships is eight kilometers long. This is because there is a very gradual dropoff, making it impossible for deep draft vessels to come in close to the shore to load. In addition, the high level of sedimentation near the shore makes it difficult to dredge to a depth required by ocean-going vessels. The gas, which is liquefied by cooling, must remain at -161 degrees Fahrenheit as it passes through the 8 kilometer pipeline so that it will flow as a liquid; if the temperature in the pipeline goes up, the LNG will turn back into gas, and escape upon loading, Agha said.

NLNG: Sweet Deal Guaranteed Add-On Trains

116. (C) The agreements initiating the Nigeria Liquefied Natural Gas Project provided that any expansion of the project be on the same favorable terms as were granted for construction of Trains 1-3. The project makes money both on the exported gas and on condensate. Train 7 is now on line,

Agha said and the company plans to add additional trains.

117. (C) Comment: Nigeria's Minister of State for Petroleum Resources told the press on the margins of the recent OPEC meeting that the government is exploring new mechanisms for funding joint venture oil and gas operations. His comment may mean the GON is showing a new willingness to pay its rightful share of the cost of exploration for new fields and to prove reserves to provide gas for both domestic and export use.

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